

**What is claimed is:**

- 1 1. A method for reorganizing data, comprising:
  - 2 reading each record of a source file;
  - 3 writing each record to a destination file;
  - 4 creating a log file containing selected log records, each log record associated with a
  - 5 change to be made to the destination file;
  - 6 reading each log record of the log file;
  - 7 processing each record of the log file to effect the associated change to the destination
  - 8 file; and
  - 9 replacing the source file with the destination file.
- 1 2. A method according to claim 1 wherein the source file is an index file.
- 1 3. A method according to claim 1 wherein the source file is a data file.
- 1 4. A method according to claim 1 wherein the step of creating a log file is performed in  
2 accordance with instructions of a DBMS log routine.
- 1 5. A method according to claim 4 wherein the log file contains a subset of all records  
2 processed by the DBMS log routine.

1 6. A method according to claim 4 wherein the log file records are selected based on a  
2 program call established by a reorganization utility.

1 7. A method according to claim 6 wherein the program call is removed prior to termination  
2 of the reorganization utility.

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1 8. A method for logging changes by a database management system, comprising:  
2 identifying a change to be logged;  
3 creating a log record based on the change;  
4 determining whether the change affects a reorganization process;  
5 storing the log record in a first log file recording selected changes if the change affects  
6 the reorganization process; and  
7 storing the log record in a second log file recording all changes.

1 9. A method according to claim 8 wherein the first log file resides in virtual storage.

1 10. A method according to claim 8 wherein the first log file resides in dataspace.

1 11. A method according to claim 8 wherein the first log file resides in hyperspace.

1 12. A method according to claim 8 wherein the first log file resides in DASD.

1 13. An apparatus for reorganizing data, comprising:  
2 means for reading each record of a source file;  
3 means for writing each record to a destination file;  
4 means for creating a log file containing selected log records, each log record associated  
5 with a change to be made to the destination file;  
6 means for reading each log record of the log file;  
7 means for processing each record of the log file to effect the associated change to the  
8 destination file; and  
9 means for replacing the source file with the destination file.

1 14. An apparatus according to claim 13 wherein the source file is an index file.

1 15. An apparatus according to claim 13 wherein the source file is a data file.

1 16. An apparatus according to claim 13 wherein the log file is created in accordance with  
2 instructions of a DBMS log routine.

1 17. An apparatus according to claim 16 wherein the log file contains a subset of all records  
2 processed by the DBMS log routine.

1 18. An apparatus according to claim 16 wherein the log file records are selected based on a

2 program call established by a reorganization utility.

1 19. An apparatus according to claim 18 wherein the program call is removed prior to  
2 termination of the reorganization utility.

1 20. An apparatus for reorganizing data, comprising:  
2 a processor;  
3 a memory connected to said processor storing a program to control the operation of said  
4 processor;  
5 the processor operative with the program in the memory to:  
6 read each record of a source file;  
7 write each record to a destination file;  
8 create a log file containing selected log records, each log record associated with a  
9 change to be made to the destination file;  
10 read each log record of the log file;  
11 process each record of the log file to effect the associated change to the  
12 destination file; and  
13 replace the source file with the destination file.

1 21. An apparatus according to claim 20 wherein the source file is an index file.

1 22. An apparatus according to claim 20 wherein the source file is an data file.

1 23. An apparatus according to claim 20 wherein the processor is further operative with the  
2 program in the memory to create the log file in accordance with instructions of a DBMS log  
3 routine.

1 24. An apparatus according to claim 23 wherein the log file contains a subset of all records  
2 processed by the DBMS log routine.

1 25. An apparatus according to claim 20 wherein the processor is further operative with the  
2 program in the memory to select the log file records based on a program call established by a  
3 reorganization utility.

1 26. An apparatus according to claim 23 wherein the processor is further operative with the  
2 program in the memory to remove the program call prior to termination of the reorganization  
3 utility.

1       27.    A computer-readable storage medium encoded with processing instructions for  
2    implementing a method for reorganizing data, the processing instructions for directing a  
3    computer to perform the steps of:  
4        reading each record of a source file;  
5        writing each record to a destination file;  
6        creating a log file containing selected log records, each log record associated with a  
7    change to be made to the destination file;  
8        reading each log record of the log file;  
9        processing each record of the log file to effect the associated change to the destination  
10    file; and  
11        replacing the source file with the destination file.